



***Tennessee Tax Revenue Estimates
for
FY2016-2017 and FY2017-2018***

***Prepared by:
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Economic Baseline

- ❑ Total nonfarm payrolls have continued steady growth.
- ❑ Last 12 months (OCT 2015 to OCT 2016): added \approx 2,400,000 jobs.
- ❑ Unemployment rate now 4.9% (OCT) in U.S.; 4.6% in TN (SEP).
- ❑ Labor force participation rate has been between 62% - 63%.
- ❑ Wages have been stagnant.
- ❑ Low crude (and gas) prices.
- ❑ Overall inflation has been very low.
 - CPI (all urban consumers, all items) = Nov 2015: 0.44%;
July 2016: 0.87%.
- ❑ Historically low cost of capital.
- ❑ Financial markets have been somewhat volatile, but have held onto the gains experienced over last few years.





Economic Baseline

- ❑ Good housing market; especially hot in certain areas of TN.
- ❑ Retail sales (excluding food services) picked up slightly in 2016:
 - 2015 over 2014 = 1.6%; YTD 2016 over 2015 \approx 2.2%
- ❑ Consumer Confidence Index – up in both August & September (highest since recession); but was down in October.
- ❑ Economic uncertainty due to the Presidential election; probably hampered economic growth to some degree.
- ❑ U.S. Dollar (\$) has strengthened; negatively impacted exports.
- ❑ GDP growth: Q4 2015: 1.4%; Q1 2016: 1.1%; Q2 2016: 1.2%.
- ❑ TN closed out FY15-16 with 5.6% growth in tax revenue (cash basis); 6.2% (accrual basis).
- ❑ So...what happens now?





Economic Outlook (Short term)

- ❑ Short term prognosis (thru end of FY16-17) is “continued slow growth”.
- ❑ Moderate GDP growth forecasts (WSJ Survey): 2.9% in Q3 2016 (advanced preliminary estimate); 2.3% in Q4 2016; 2.2% in Q1 2017; and 2.3% in Q2 2017.
- ❑ Expectations for retail sales are good:
 - 2016 Holiday sales growth rate forecast is 3.7% per National Retail Federation; was 3.6% in 2015.
- ❑ U.S. (ISM) Manufacturing Index rose to 51.9 in October.
- ❑ Employment numbers should continue to improve (marginally).
- ❑ Wage growth is starting to become more evident.
 - Federal Reserve Bank (Atlanta) Wage Growth Tracker (non-smoothed) – up 4.2% in September 2016.





Economic Outlook (Short term)

- ❑ With wages starting to rise, prices are likely to pick up.
 - CPI (all items) up to 1.5% in Sep. 2016 (2-year high).
- ❑ Slight upward price pressures; but still relatively low core inflation expectations (WSJ Survey): 1.7% in Dec. 2016; and 2.1% in June 2017.
- ❑ Crude prices expected to remain relatively low for some time – below \$60/barrel thru December 2018 (WSJ Survey).
- ❑ Housing still has room for growth.
 - Increasing demand \approx increasing prices: up in October by 5.2%.
 - More first-time home buyers – 34% of all buyers in September.
- ❑ Millennials are slowly starting to consume more.
- ❑ Marginally increasing consumer demand \approx moderate tax revenue growth.





Economic Outlook (Long term)

- ❑ Longer term prognosis (FY17-18) is much more uncertain:
 - Most probable: Continue slow growth period (2.0 –2.5% GDP growth).
 - Increasing possibility: Begin a period of diminishing growth.
- ❑ Economy approaching a business cycle peak.
- ❑ Rate that the economy has been adding new jobs is diminishing.
- ❑ Approaching full employment; natural rate of unemployment.
- ❑ Fed monetary policy benchmarks: Unemployment (5.0%) and inflation (2.0%).
- ❑ Likely the Fed will increase short term interest rates in December 2016 with subsequent rate increases to follow.
- ❑ Fed commitment to quarterly rate increases could be the factor that causes a very slow economic expansion to change to a period of diminishing growth...that ultimately leads to the next recession.





Economic Outlook (Long term)

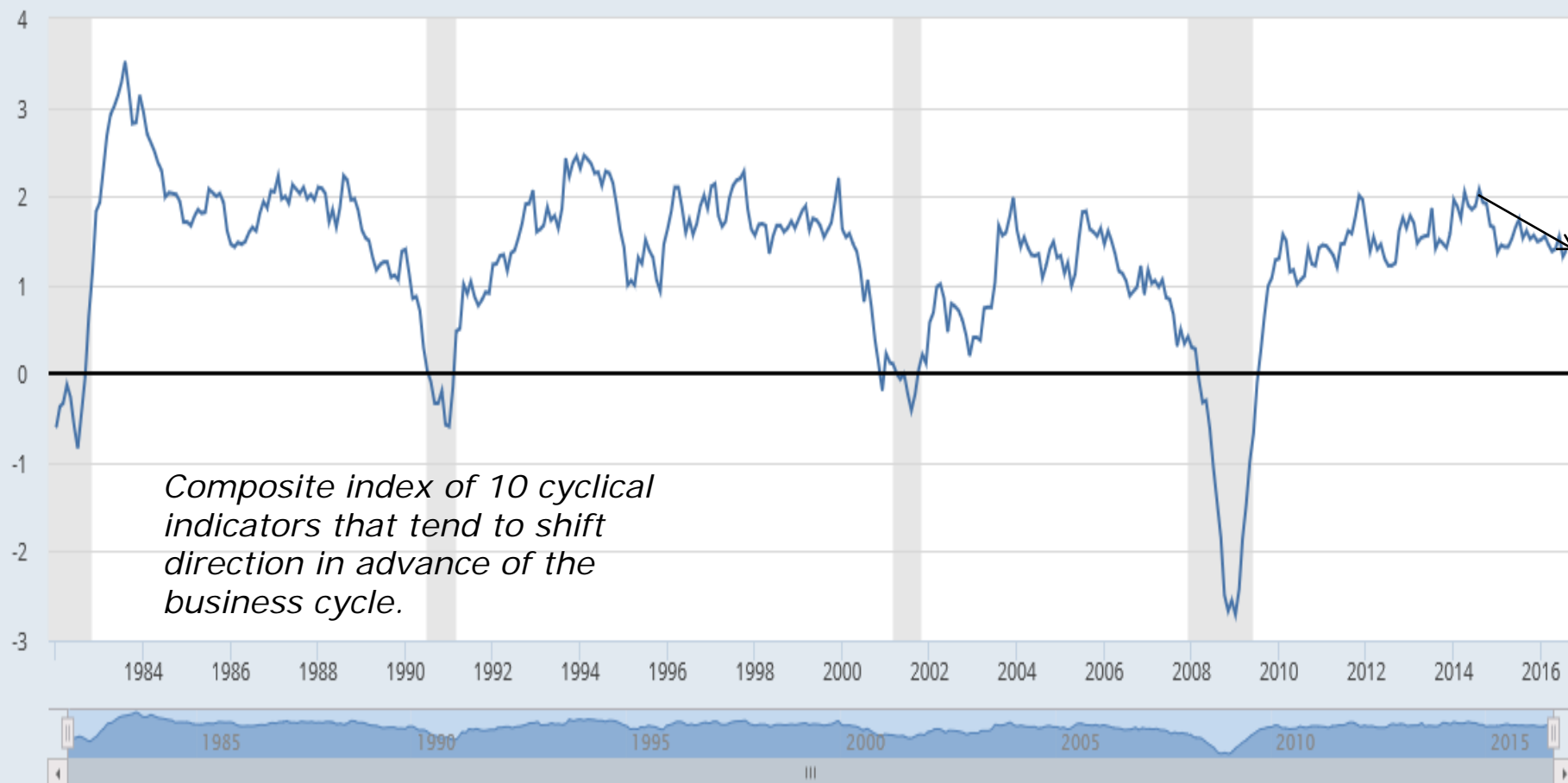
- ❑ Now 89 months into economic expansion (since June 2009).
- ❑ An additional 20 months of expansion (109 total months) would be the 2nd longest period of expansion period since WWII.
- ❑ U.S. twice as likely to enter a recession after a Presidential election as compared with all other years (4 of last 8 recessions).
- ❑ Monthly survey of economists put odds of a recession occurring within next 4 years at 60%; within the next year at over 20%.
- ❑ Besides anecdotal information, what specific indicators might be suggesting we are approaching the end of the business cycle?
 - U.S. Leading Economic Index
 - Diffusion Index
 - Yield Spread
 - TN Leading Index (as compared to the U.S. LEI)
 - U.S. Unemployment Rate vs 3-year Moving Average
 - Peak of Corporate Profits





U.S. Leading Economic Index

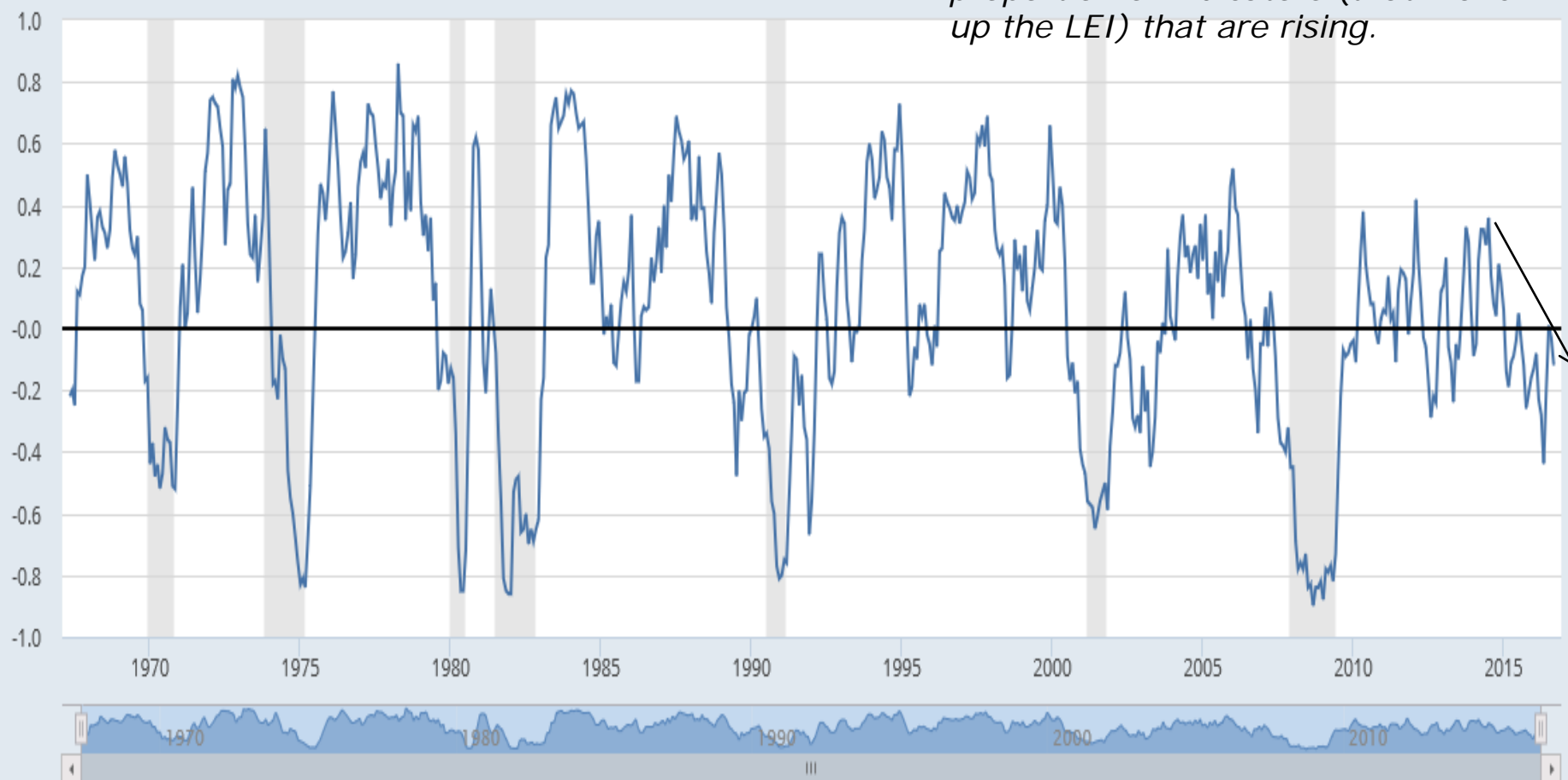
FRED — Leading Index for the United States





Diffusion Index

FRED — Chicago Fed National Activity Index: Diffusion Index

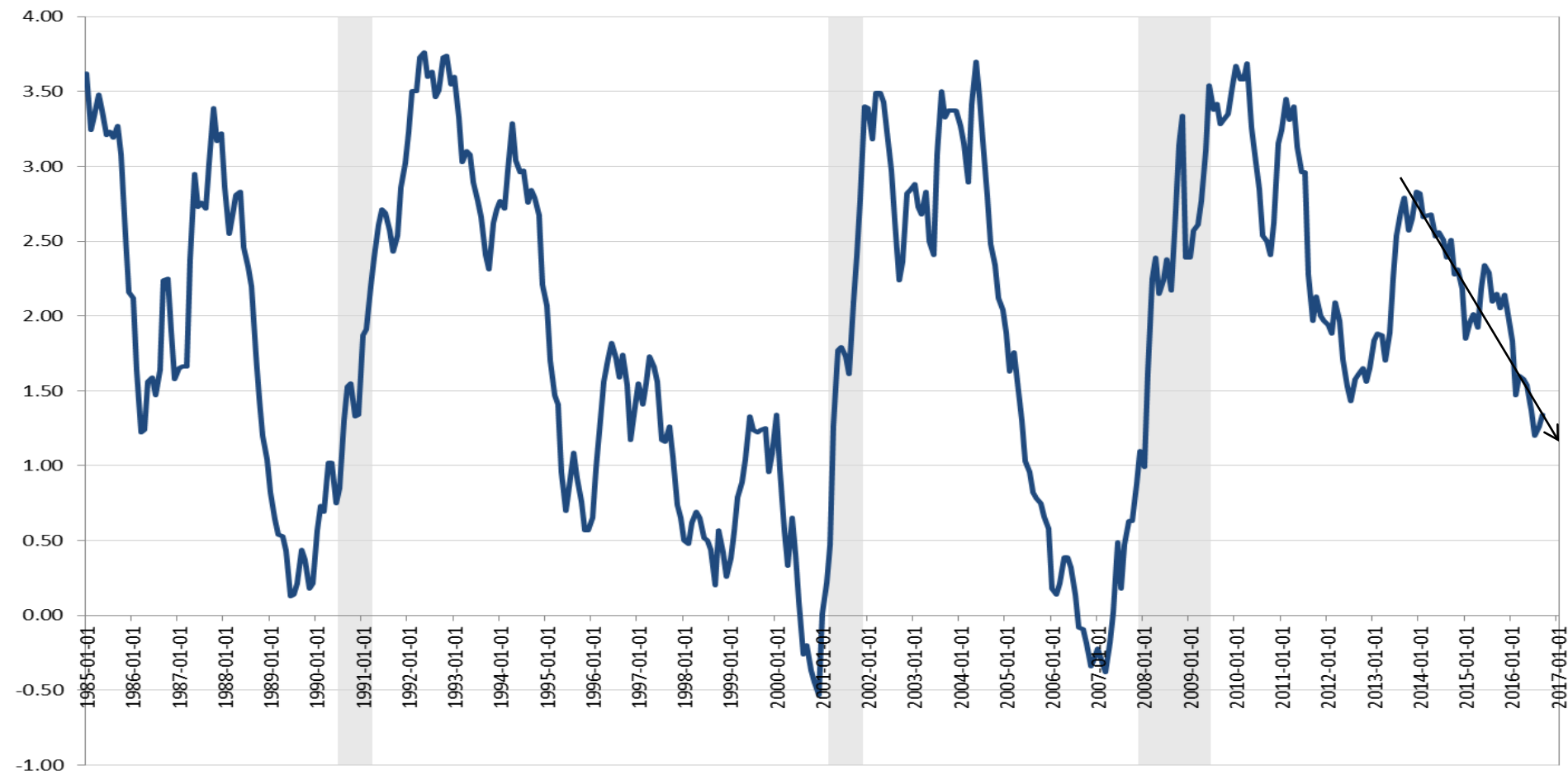




Yield Spread

The Yield Spread

10-Year Treasury Constant Maturity Rate Less 3-Month Treasury Bill

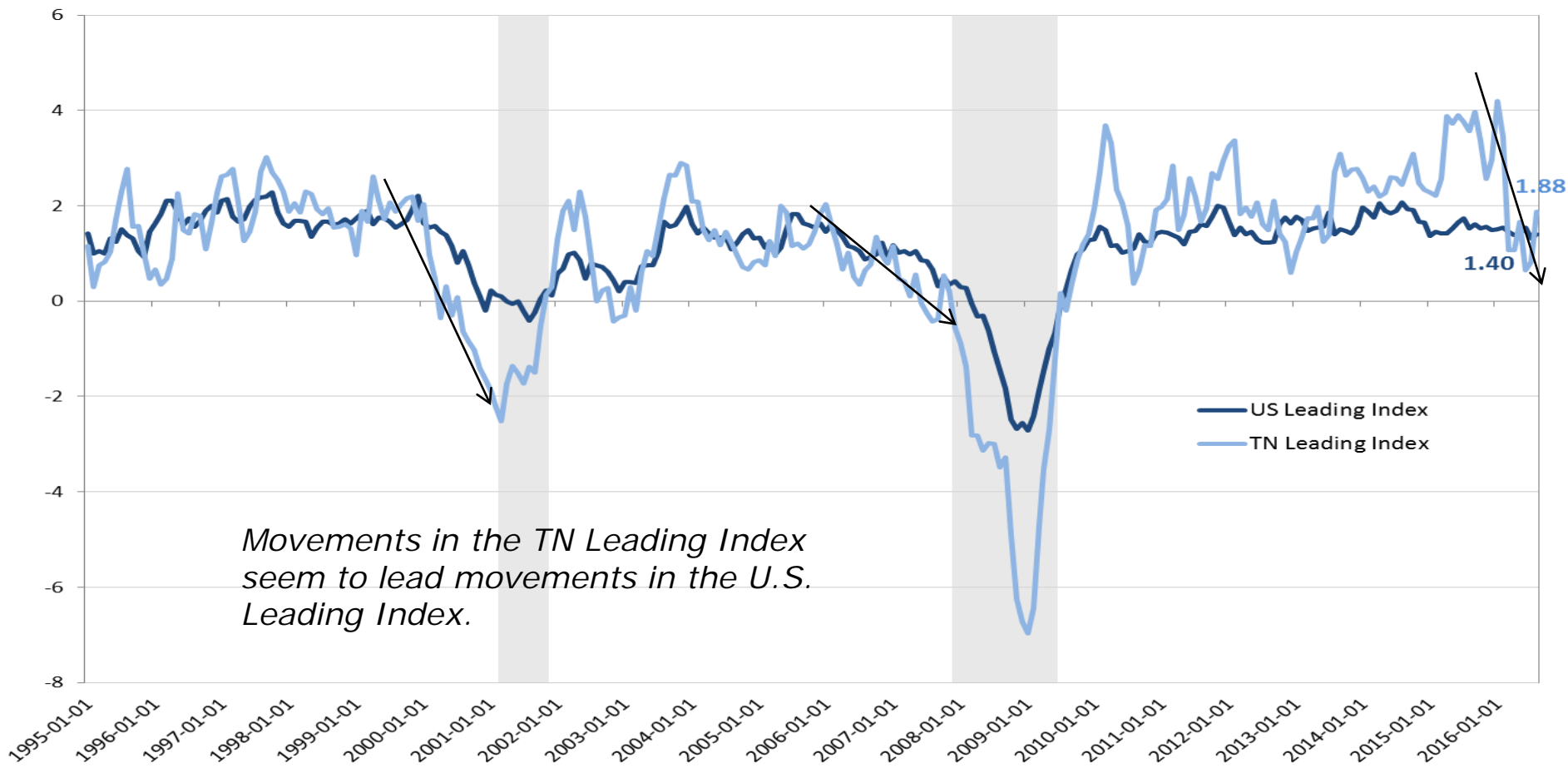




TN Leading Index (vs. U.S. Index)

Federal Reserve Bank of Philadelphia Leading Index

Percent, Monthly, Seasonally Adjusted

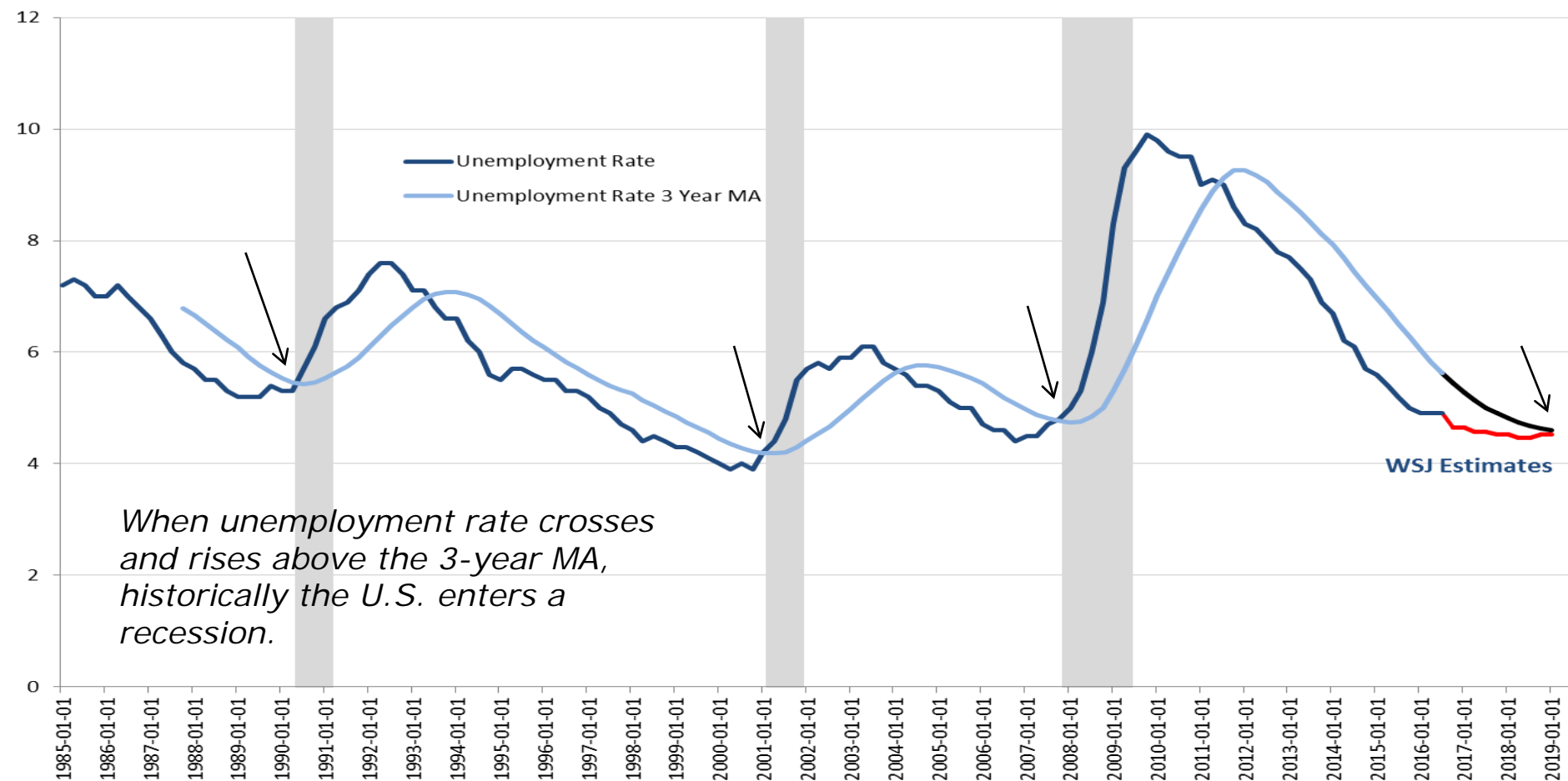




Unemployment (Rate vs 3-Yr MA)

U.S. Unemployment Rate

Percent, Quarterly, Seasonally Adjusted



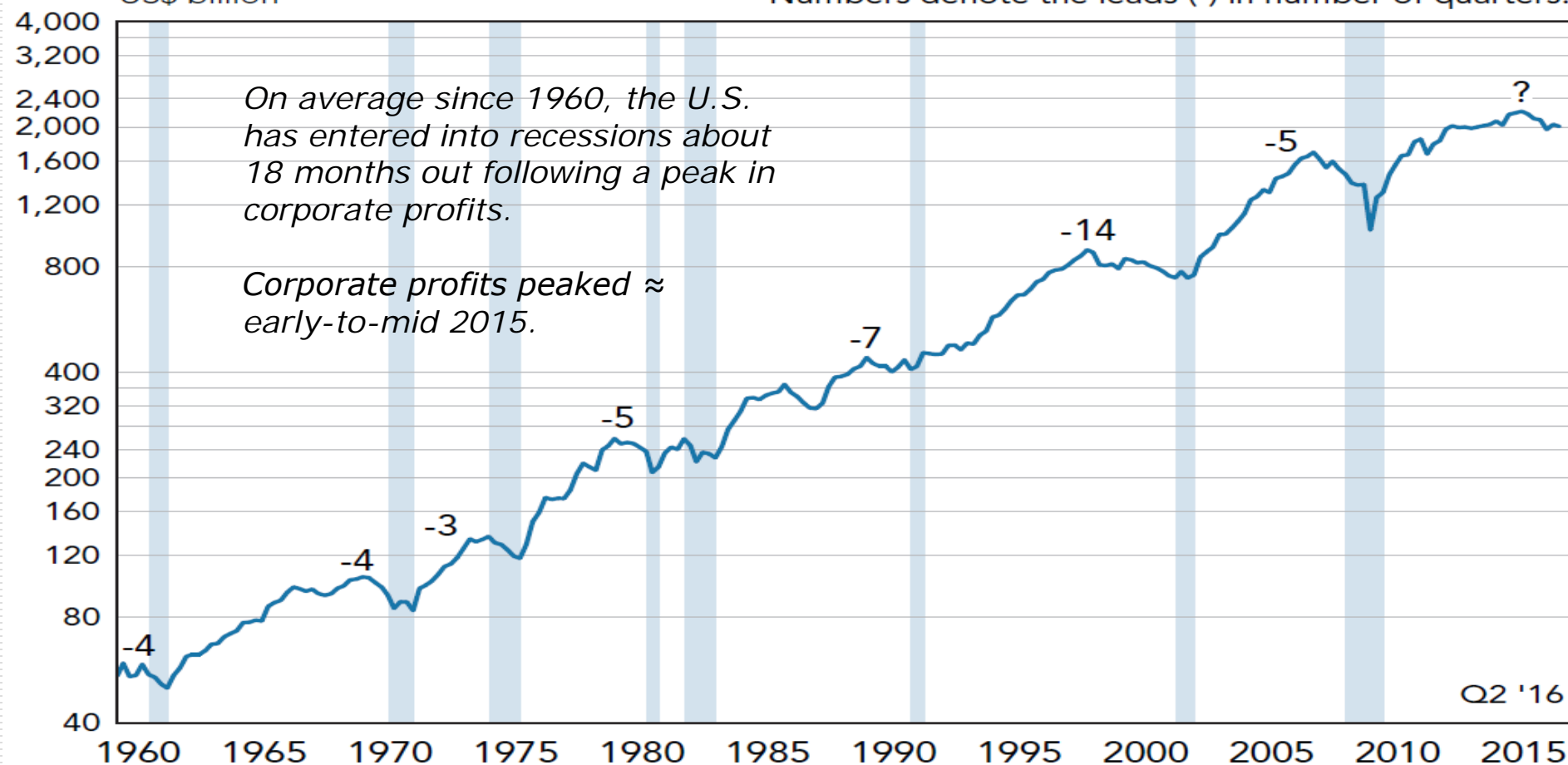


Peak of Corporate Profits

Corporate profits with inventory valuation and capital consumption adjustments

US\$ billion

Numbers denote the leads (-) in number of quarters.





Economic Outlook (Summary)

- Economic outlook (and revenue growth forecasts) should be tempered (slightly) based on:
 - Recent changes in leading indicators.
 - Elevated level of uncertainty that resulted from atypical Presidential election.
 - That uncertainty is over; will be replaced with new uncertainty concerning the policies of the President-elect (with a Republican-majority Congress).
 - The status of the U.S. economy within the current business cycle expansion.
 - Economic expansions do not last into perpetuity.
 - Not a matter of if, but when (next recession occurs).





Economic Outlook (Summary)

- ❑ But overall, economic fundamentals are still there for moderate tax revenue growth:
 - Increasing consumer demand.
 - Upside potential with housing.
 - Driven in part due to millennials.
 - Good employment numbers.
 - Relatively low crude (gas) prices.
 - Upward price pressures will be mild/gradual.
 - Despite marginally increasing interest rates, the cost of capital will remain relatively low for the forecasting period.





Revenue Forecasting Issues

- ☐ What will sales tax collection growth be following three years of better-than-average and accelerating growth; 3.9% in FY13-14, 5.8% in FY14-15, and 7.3% in FY15-16 respectively?
- ☐ What are F&E taxes going to do after two consecutive years of good growth; 16.5% in FY14-15, and 6.8% in FY15-16 respectively?
- ☐ Is recent growth in fuel tax collections sustainable? All fuel taxes combined grew 4.35% in FY15-16.
- ☐ What's up with the alcohol related taxes? All alcohol related taxes combined grew 10.01% in FY15-16.
- ☐ What lies ahead for Hall Income tax collections and inheritance/estate tax collections?





TN Tax Revenue Outlook

- ❑ FRC is estimating tax revenue growth, but diminished growth for each FY16-17 and FY17-18 (relative to FY15-16):
 - Accrued revenue growth was 6.20% in FY15-16.
 - FY16-17 estimate for total revenue growth is **3.26%**
 - *General Fund growth estimated to be **3.71%**.*
 - FY17-18 estimate for total revenue growth is **3.44%**
 - *General Fund growth estimated to be **3.66%**.*





Growth Forecasts: FY16-17 & FY17-18

Tax Source	FY16-17			FY17-18
	FY16-17 YTD Growth	Growth Forecast for Remainder of FY16-17	Growth Estimates for FY16-17	Growth Estimates for FY17-18
Sales Tax	3.72%	4.40%	4.23%	3.71%
F&E	14.04%	2.67%	4.90%	4.58%
Motor Fuels	0.23%	2.51%	1.94%	2.19%
Alcohol	7.77%	7.21%	7.77%	6.98%
Income	-63.68%	-16.35%	-17.97%	2.64%
All Other	1.65%	-0.87%	-0.29%	0.49%
Total	4.55%	2.79%	3.20%	3.44%

***Growth rate estimates for FY16-17 are relative to FY15-16 cash collections**





Estimates for FY16-17 & FY17-18

REVENUE SOURCE	ACTUAL ACCRUED COLLECTIONS FY15-16	FRC STAFF TAX REVENUE ESTIMATES FY16-17	PERCENT INCREASE OVER FY15-16	FRC STAFF TAX REVENUE ESTIMATES FY17-18	PERCENT INCREASE OVER FY16-17
SALES & USE TAX	\$8,267,224,400	\$8,620,000,000	4.3%	\$8,940,000,000	3.7%
GASOLINE TAX	\$659,915,000	\$671,000,000	1.7%	\$684,400,000	2.0%
MOTOR FUEL TAX	\$172,336,300	\$178,000,000	3.3%	\$183,300,000	3.0%
GASOLINE INSPECTION TAX	\$67,380,500	\$68,900,000	2.3%	\$70,300,000	2.0%
MOTOR VEHICLE REG. TAX	\$271,197,800	\$280,000,000	3.2%	\$285,500,000	2.0%
INCOME TAX	\$322,356,000	\$265,000,000	-17.8%	\$272,000,000	2.6%
PRIVILEGE TAX - LESS EARMARKED*	\$316,544,100	\$347,000,000	9.6%	\$357,000,000	2.9%
GROSS RECEIPTS TAX: TVA	\$348,742,900	\$342,200,000	-1.9%	\$345,000,000	0.8%
GROSS RECEIPTS TAX: OTHER	\$19,979,200	\$29,000,000	45.2%	\$29,000,000	0.0%
BEER TAX*	\$17,378,000	\$18,500,000	6.5%	\$18,900,000	2.2%
ALCOHOLIC BEVERAGE TAX	\$62,250,200	\$69,000,000	10.8%	\$74,500,000	8.0%
FRANCHISE & EXCISE TAX	\$2,311,705,100	\$2,400,000,000	3.8%	\$2,510,000,000	4.6%
INHERITANCE TAX	\$55,353,200	\$22,000,000	-60.3%	\$3,000,000	-86.4%
TOBACCO TAX	\$261,480,900	\$260,000,000	-0.6%	\$256,800,000	-1.2%
MOTOR VEHICLE TITLE FEES	\$22,781,500	\$25,000,000	9.7%	\$26,000,000	4.0%
MIXED DRINK TAX	\$96,275,100	\$104,500,000	8.5%	\$112,000,000	7.2%
BUSINESS TAX	\$154,622,300	\$165,000,000	6.7%	\$175,000,000	6.1%
SEVERANCE TAX	\$1,400,400	\$1,350,000	-3.6%	\$1,400,000	3.7%
AMUSEMENT TAX	\$268,500	\$250,000	-6.9%	\$250,000	0.0%
UNAUTHORIZED SUBSTANCE TAX	\$5,900	\$0	N/A	\$0	N/A
TOTAL REVENUE	\$13,429,197,300	\$13,866,700,000	3.26%	\$14,344,350,000	3.44%

*Privilege Tax estimates are reduced by \$43.0 million for the earmarked portion of the tax.





FY16-17: All Funds and General Fund

REVENUE SOURCE	ALL FUNDS	GENERAL FUND
	<u>FY16-17</u>	<u>FY16-17</u>
SALES & USE TAX	\$8,620,000,000	\$8,144,544,000
GASOLINE TAX	\$671,000,000	\$10,817,000
MOTOR FUEL TAX	\$178,000,000	\$3,347,000
GASOLINE INSPECTION TAX	\$68,900,000	\$20,222,000
MOTOR VEHICLE REGISTRATION TAX	\$280,000,000	\$47,896,000
INCOME TAX	\$265,000,000	\$173,056,000
PRIVILEGE TAX	\$347,000,000	\$346,896,000
GROSS RECEIPTS TAX: TVA	\$342,200,000	\$188,933,000
GROSS RECEIPTS TAX: OTHER	\$29,000,000	\$24,446,000
BEER TAX	\$18,500,000	\$12,442,000
ALCOHOLIC BEVERAGE TAX	\$69,000,000	\$57,149,000
FRANCHISE & EXCISE TAX	\$2,400,000,000	\$2,122,900,000
INHERITANCE TAX	\$22,000,000	\$22,000,000
TOBACCO TAX	\$260,000,000	\$260,000,000
MOTOR VEHICLE TITLE FEES	\$25,000,000	\$22,300,000
MIXED DRINK TAX	\$104,500,000	\$52,194,000
BUSINESS TAX	\$165,000,000	\$165,000,000
SEVERANCE TAX	\$1,350,000	\$540,000
AMUSEMENT TAX	\$250,000	\$250,000
UNAUTHORIZED SUBSTANCE	\$0	\$0
TOTAL REVENUE	\$13,866,700,000	\$11,674,932,000





FRC Estimates for FY16-17 Relative to Current Budgeted Estimates

CURRENT FRC STAFF ESTIMATE FOR FY16-17	
SALES TAX	\$8,620,000,000
FRANCHISE & EXCISE TAXES	\$2,400,000,000
ALL FUNDS	\$13,866,700,000
GENERAL FUND	\$11,674,932,000
CURRENT BUDGETED ESTIMATE FOR FY16-17	
SALES TAX	\$8,272,700,000
FRANCHISE & EXCISE TAXES	\$2,133,400,000
ALL FUNDS	\$13,177,600,000
GENERAL FUND	\$11,056,900,000
EST. OVERAGE/(SHORTAGE) COMPARED TO CURRENT BUDGETED ESTIMATE FOR FY16-17:	
SALES TAX	\$347,300,000
FRANCHISE & EXCISE TAXES	\$266,600,000
ALL FUNDS	\$689,100,000
GENERAL FUND	\$618,032,000
ACT. GENERAL FUND FOR FY15-16:	\$11,257,133,600
EST. GENERAL FUND INCREASE OVER FY15-16:	\$417,798,400





FY17-18: All Funds and General Fund

REVENUE SOURCE	ALL FUNDS	GENERAL FUND
	<u>FY17-18</u>	<u>FY17-18</u>
SALES & USE TAX	\$8,940,000,000	\$8,446,894,000
GASOLINE TAX	\$684,400,000	\$11,033,000
MOTOR FUEL TAX	\$183,300,000	\$3,446,000
GASOLINE INSPECTION TAX	\$70,300,000	\$20,633,000
MOTOR VEHICLE REGISTRATION TAX	\$285,500,000	\$48,837,000
INCOME TAX	\$272,000,000	\$177,627,000
PRIVILEGE TAX	\$357,000,000	\$356,893,000
GROSS RECEIPTS TAX: TVA	\$345,000,000	\$190,479,000
GROSS RECEIPTS TAX: OTHER	\$29,000,000	\$24,446,000
BEER TAX	\$18,900,000	\$12,711,000
ALCOHOLIC BEVERAGE TAX	\$74,500,000	\$61,705,000
FRANCHISE & EXCISE TAX	\$2,510,000,000	\$2,232,900,000
INHERITANCE TAX	\$3,000,000	\$3,000,000
TOBACCO TAX	\$256,800,000	\$256,800,000
MOTOR VEHICLE TITLE FEES	\$26,000,000	\$23,300,000
MIXED DRINK TAX	\$112,000,000	\$55,940,000
BUSINESS TAX	\$175,000,000	\$175,000,000
SEVERANCE TAX	\$1,400,000	\$560,000
AMUSEMENT TAX	\$250,000	\$250,000
UNAUTHORIZED SUBSTANCE	\$0	\$0
TOTAL REVENUE	\$14,344,350,000	\$12,102,454,000

